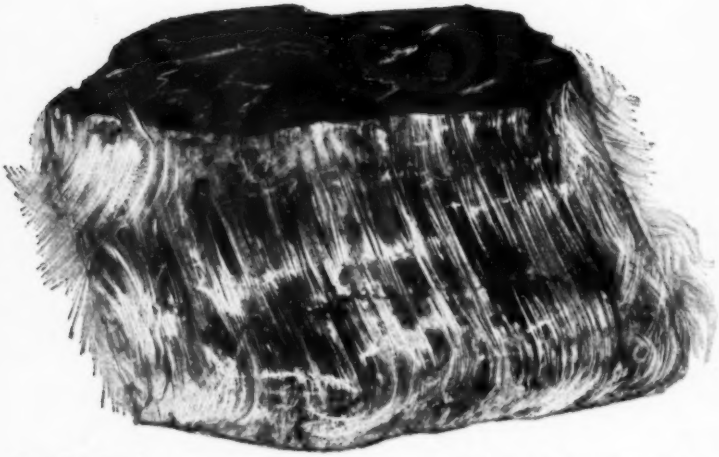
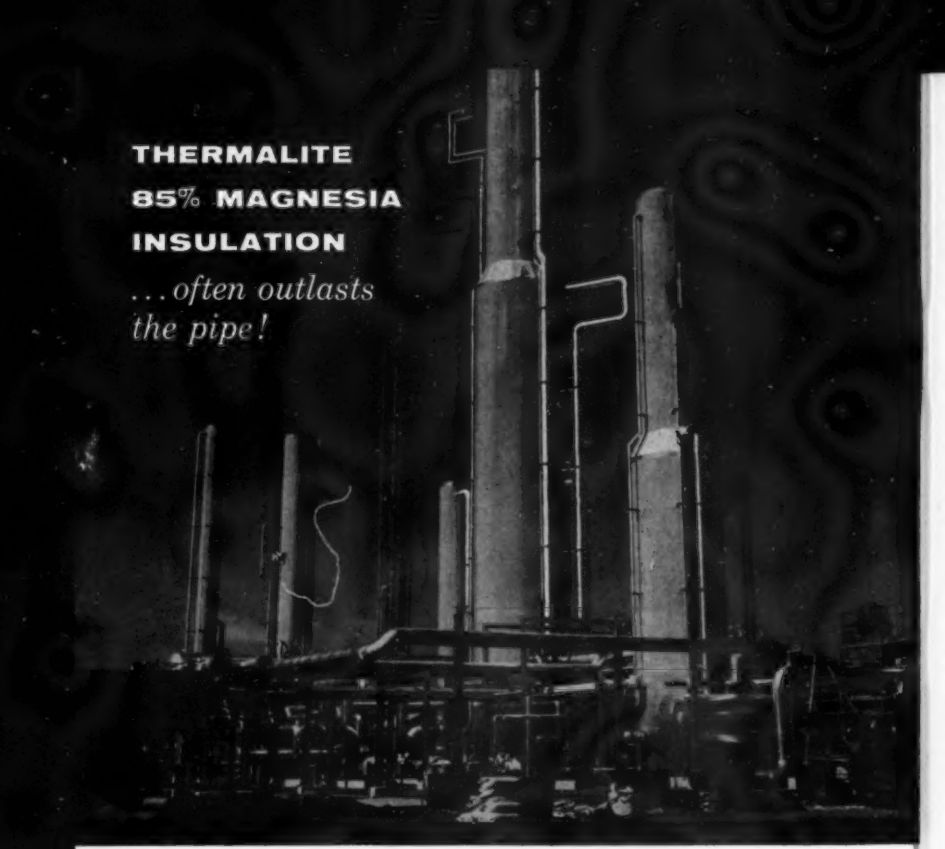
ASBESTOS



Canadian Crude

Courtesy Asbestos Corporation Limited

DECEMBER 1959



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"ASBESTOS"

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CHRISTMAS
NINETEEN-HUNDRED AND FIFTY-NINE

At this season of the year, everyone is thinking of giving. But mingled with those happy thoughts must also come some sobering consideration of the "cost of giving" —for all gifts cost something.

Let us suggest a few most worthy gifts which know no price in dollars. They are:

The Gift of Praise—Appropriate mention—right in front of the other fellow—of superior qualities or of jobs or deeds well done.

The Gift of Consideration—Putting yourself in the other fellow's shoes, and thus proving your genuine understanding of his side of the case.

The Gift of Concession—Humbly saying at just the right point, "Sorry—you're right and I am wrong".

The Gift of Gratitude—Never forgetting to say "Thank you"—and never failing to mean it.

The Gift of Attention—When the other fellow speaks, listen attentively. If his words are directed to you personally, meet his eye squarely.

The Gift of Inspiration—Plant seeds of courage and action in the other fellow's heart. Help him to strive for greater accomplishment and lasting satisfaction.

The Gift of Your Personal Presence—In sickness, in trouble, or in a day of great joy, there is nothing quite equal to your personal expression of sympathy or congratulations.

These are gifts that all can bestow—at Christmastime and throughout the year—and be richer for the giving.

whatever your business . . .

You need "K&M" ASBESTOS TEXTILES

What are your needs? Electrical insulation? Temperature control? Use "K&M" Asbestos Woven Tape or "K&M" Asbestos Braided Tubing. Safety garments? That's the job of "K&M" Asbestos Cloth. Need an insulating material for caulking, packing, or wrapping? We recommend "K&M" Asbestos Rope.

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BEST IN ASBESTOS

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REVIEWING 1959

As we move forward into 1960 and onward into the last part of the 20th Century, we pause briefly for reflection on the accomplishments of the past twelve months.

Even though the steel strike occurred and touched the Industry, many companies reported record sales and earnings at a high level.

Of course, an outstanding happening in 1959 was the new St. Lawrence Seaway which was constructed jointly by the United States and Canada. It was officially opened on June 26 by President Eisenhower and Queen Elizabeth II at ceremonies at St. Lambert Lock near Montreal. An army of engineers and workmen—22,000 at peak effort—labored for five years on the St. Lawrence to complete the waterway.

Some of the events of 1959 in the Asbestos Industry include the merger of Ehret Magnesia Company and Baldwin-Hill, Inc.; the merger of Thermoid Company and H. K. Porter Company, Inc.; the merger of The Flintkote Company and Calaveras Cement Company; National Gypsum Company's acquisition of Huron Portland Cement Company; Cape Asbestos Company Limited acquired William Turner (Kismet) Limited; The Ruberoid Co. acquired the Mastic Tile Corporation of America; Rockbestos became the division of Cerro de Pasco; The Flintkote Company acquired Glens Falls Portland Cement Company; Johns-Manville Corporation acquired F. E. Schundler & Company, Inc.; and, the Clute Corporation has acquired 100% of the outstanding stock in Asbestos Bonding Corporation.

The first technical round table conference on the design and application of Needled Felts for Asbestos-Cement Machines was held at the Albany Felt Company.

Johns-Manville played a big part with its products, Min-K and Thermobestos, in the world's first underground sulphur mine owned by Freeport Sulphur Company and located in the Gulf of Mexico.

The National Insulation Manufacturers Association was formed this past year by members of the industrial insulation industry of the United States as a voluntary and

unincorporated organization designed to render service to manufacturers of insulation for industry and commercial use and to promote the welfare and development of the industrial insulation industry.

Mundet Cork Corporation appointed Kelley Asbestos Products Company to be its Distributor-Contractor; Keasbey & Mattison Company appointed the Republic Supply Company of California as a pipe sales agent; and, Carey-Canadian Mines, Limited appointed T. Kakiuchi & Company Limited as its Japanese Sales Agent.

Asbestos Cement Industries, Limited, is the name of the first asbestos cement sheet factory in Pakistan and has been officially opened in Hyberabad, West Pakistan.

"ASBESTOS" has recorded the retirement of a few prominent men in the Asbestos Industry. J. C. Kelleher, Sales Manager of Canadian Johns-Manville Asbestos Fibre Division, retired February 1, 1959 after more than 41 years of service with the company; David E. Kelley partially retired by resigning as President of Kelley Asbestos Products Company; Alvin Brown retired as Vice President for Finance of Johns-Manville Corporation having served in this capacity since 1946; Percy E. Coombes retired from The Cape Asbestos Company Limited with over 40 years of distinguished service; Charles A. Berlepsch retired as Director of Purchases after 41 years with Rockbestos Products Corporation; Charles R. Frederick, the head of Keasbey & Mattison's sales engineering department, retired after 36 years of service; Simon Collier, Director of Quality Control for Johns-Manville retired to become active in ASTM and the American Society for Quality Control; Raymond C. Parlett, authority on thermal insulation, retired after a 40-year career with J-M and has become Technical Advisor to the National Insulation Manufacturers Association; Randolph H. Barnard announced his resignation as President of Johns-Manville Fibre Glass, Inc.; Charles F. Batchelder and Frederick E. Byrnes recently resigned from the Board of Directors of The Ruberoid Co.; and, Joseph L. Wood retired on December 1st of this year as Treasurer of Johns-Manville Corporation.

It has been a sad task for us to record the deaths of some of the key men in the Industry; among them are: Chester C. Kelsey, Executive Director of The Asbestos-Cement Products Association, December 13, 1958; Irving Kevelson, President, Ace Asbestos Manufacturing Company, Inc., December 14, 1958; Ernest A. Beldam, son of Founder of Beldam Asbestos Company Limited, England, January 2, 1959; Sir Walker Shepherd, English Industrialist, February 27, 1959; Sherman R. Doner, Technical Representative of Raybestos-Manhattan, Inc., August 12, 1959; J. Emile Boivin, Milling Superintendent at Asbestos Corporation Limited's King-Beaver Mill, August 16, 1959; Henning W. Prentis, Jr., Chairman of the Board of Armstrong Cork Company, October 2, 1959; Harry E. Smith, retired Vice President of Raybestos-Manhattan, Inc., November 2, 1959.

Following are some of the new materials and products recorded by us during the past year. A high speed spinning frame, Asbestos-Spingard, was developed and introduced by Messrs. Adriano Gardello & F.llo of Italy. A 114-foot steam autoclave, technically classified as an indurator, was delivered to Ehret Magnesia Manufacturing Company for the production of high temperature insulation. The Smith Separator, an improved design of an inclined conveyor belt, was invented by Mr. C. V. Smith. The Metallic Series of Excelon Tile was introduced by Armstrong Cork Company. 7RF-7, a fibre with an unusual whiteness, a low iron and grit content and a uniform fibre length compared to ordinary asbestos fibre was developed and produced by Carey-Canadian Mines Limited. Careytemp, a complete new pipe and block insulation, was introduced by The Philip Carey Manufacturing Company. K-Board, a new industrial insulation of the rigid board type, and asbestos-cement pipe in 14″ and 16″ diameters for use in pressure installations, gravity sewer lines and irrigation systems, were introduced by Keasbey & Mattison Company. A new long-life asbestos-cement gravity sewer pipe featuring a specially designed Fluid-Tite coupling was introduced by Atlas Asbestos Company Limited. A new lint-free, non-fraying safety cloth with greater abrasion resistance than plain asbestos cloth was made available by Union Asbestos & Rubber

Company. Flexible asbestos firewall cloth and a resilient packing seal, products of Johns-Manville Corporation were used in United States jet aircraft. A new design in asbestos-cement roof sheeting, capable of spanning purlins at up to 9'6" centres was announced by Universal Asbestos Manufacturing Company Limited. Dura-Color, a new process to preserve colors in plastic has been developed by The Ruberoid Co. The availability of several additional types of packing, including interlocking braided asbestos packings and a new line of compressed asbestos sheet packing, were announced by Union Asbestos & Rubber Company.

The following are the results of expansion plans of many of the companies in the Asbestos Industry. Recently, Jefferson Lake Sulphur Company has exercised an option to acquire a major deposit of chrysotile asbestos located near Stockton, California, from American Asbestos Company of New York. Canadian J-M started expansion of open pit mining operation at Jeffrey Mine in order to abandon underground mining which was proven uneconomical. The Flintkote Company announced plans to construct a "Miracle Lime" plant at Salt Lake City, Utah. Flintkote also opened its third branch office, Sondik & Company of Vermont, at Burlington and has announced plans for construction of a $14 million cement plant at Redding, California. The Insulation Division of Armstrong Cork opened its new District Office in Philadelphia, Pennsylvania. Metate Asbestos Corporation completed its new pilot mill at Globe, Arizona, to produce a complete line of low grade asbestos fibres. Fibreboard Paper Products Corporation announced multi-million dollar capital expansion plans for the San Joaquin pulp and paperboard mill. Keasbey & Mattison disclosed its forming of a new products department to cultivate broader applications and wider markets for its asbestos, asphalt and heat insulating products. Ruberoid will complete construction of its roofing felt plant at Gloucester City, New Jersey and also opened a new research laboratory at Hagerstown, Maryland, to be operated by The Funkhouser Mills. National Gypsum Company has started expansion on its multi-million dollar plant at Waukegan, Illinois, to meet market demands.

National Gypsum has also announced the completion of a major expansion of its plant in Savannah, Georgia, making it the largest gypsum plant in the world. Johns-Manville Corporation began construction of a multi-million dollar plant for the manufacture of J-M vinyl plastic and asphalt floor tiles at Chillicothe, Ohio. Also, J-M recently opened Johns-Manville Mexicana S.A. de C.V., the first industrial packings plant in Naucalpan, Mexico. This is part of a four-point program of expanded foreign trade initiated by the world-wide J-M organization. The closely coordinated program will result in establishment of more overseas manufacturing facilities and provide greater business flexibility in rapidly changing world-trade patterns. Facilities at Canadian J-M's Toronto plant will be expanded to manufacture a new molded high temperature industrial insulation for the Canadian market, known as Thermobestos. National Gypsum Company announced that it will build a $400,000 addition to its Town of Tonawanda Research Center. This action is expected to lead to National Gypsum's entry into the manufacture of new plastic building materials. K&M held dedication ceremonies in October with the formal opening of its new Headquarters Office building and Research & Development Center, marking the completion of the first phase of a major expansion program. Raybestos-Manhattan, Inc. has revealed plans to build a Pacific Coast plant at Fullerton Industrial Park, Fullerton, California, to provide improved and expanded facilities for the production of items made of "Teflon" and Nylon.

The Ruberoid Co. held ceremonies marking the 73rd anniversary of its founding.

There have been numerous personnel promotions recorded in "ASBESTOS" for the year 1959 and many of the key companies created new departments in order to meet the needs of product and market expansion. New executives were appointed and a great number of lesser executives were moved up to more responsible positions. Some of the top appointments in the Industry were: James B. Anchors became President of Kelley Asbestos Products Company; John J. Roper was elected President of the Asbestos Contractors New England Association for the

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year 1959; Robert M. Waples became Chairman of the Board of The Garlock Packing Company and A. J. McMullen was named President and principal executive and administrative officer of Garlock; Robert E. Cryor was elected President of Cape Asbestos (Canada) Limited of Toronto and Caposite Insulations Limited of Sarnia, Canadian subsidiaries of Cape Asbestos Company Limited; James MacDonald was elected President by the Board of Directors of H. W. Porter & Co. and its wholly owned subsidiary, Reid Hayden, Inc.; E. J. O'Leary, President and chief executive officer of The Ruberoid Co. was elected Chairman of the Board; Robert R. Porter, President of Keasbey & Mattison Company was elected Chairman of the Board; William H. White was elected Director of Raybestos-Manhattan, Inc.; Paul D. Japp, Vice President of The Philip Carey Manufacturing Company was given additional responsibilities as Director of Sales for the company's industrial insulation and magnesia chemical products; C. B. Burnett was elected President and Chief Operating Officer of Johns-Manville Corporation in November to become effective January 1, 1960; Seymour Milstein and Harry C. Hachmeister, President and Executive Vice President, respectively, of The Ruberoid Co.'s Mastic Tile Division, have been elected to the Board of Directors of Ruberoid; Oscar A. Maggia has been elected Secretary and Herbert Abraham has been named Honorary Chairman of the Board of The Ruberoid Co.; and, James M. Shackelford has been elected Treasurer of Johns-Manville Corporation.

There were several informative leaflets and other small publications printed on Asbestos during the year. National Bureau of Standards Building Materials and Structures Report 140, by Edith R. Meggers, gives sources of information concerning building construction and maintenance. Asbestos Cement Engineering Company of Vaduz has printed a new leaflet which compares the weight of the same diameter Cast Iron Pipes and Asbestos Cement Pipes. A new "pocket compendium" by the U.A.M. Group provides a handy guide to the wide range of Universal asbestos-cement products, Union pitch fibre pipes and Unilux plastics sheeting. A.S.H.A.E. has published its 37th edition

of "The Heating Ventilating Air Conditioning Guide 1959". "Fire Protection of Structures" is a revised publication of a booklet from Turners Asbestos Cement Company Limited. A folder, produced by Atlas Asbestos Company Limited, contains crushing strength data for Gravity Sewer Pipes. "American Thatch" asbestos roofing is described in a folder issued by The Ruberoid Co. A brochure describing asbestos-cement underground irrigation was made available by Keasbey & Mattison Company. K&M also published a folder on asbestos-cement gravity sewer pipe, and a folder giving up-to-the-minute information and technical data on Sprayed "LIMPET" Asbestos, including results of its most recent fire tests. NFPA No. 80, a standard for the installation of Fire Doors and Windows, was published by the National Fire Protection Association. Smith & Kanzler Corporation has published two brochures on its product "SprayCraft", a superior non-combustible thermal and acoustical insulation material for decorative and industrial applications.

The new "1959 All-Products Catalog of Tile-Tex Floor Products" was printed by The Flintkote Company.

"ASBESTOS" made mention of three papers. "Asbestos—A Symposium of Articles" by M. S. Badollet, B.S., M.S., Chem. Eng., was assembled by the Quebec Asbestos Mining Association. This was taken from a series of papers, on Asbestos, as published in The Canadian Mining and Metallurgical Bulletin, 1948-58. The remaining two papers were: "Further Observations on the Morphology of Chrysotile and Halloysite", by Thomas F. Bates and Joseph J. Comer, and, "Morphology of Crystal Chemistry of 1:1 Layer of Lattice Silicates", by Thomas F. Bates.

Some very interesting articles on Asbestos were written during the past year. "Recent Developments in Inorganic Fibre Papers", by C. Z. Carroll-Porczynski, was published in the No. 4, 1958 International Edition of Industrial Textiles. "The Significance of Iron in Asbestos Materials Used for Electrical Insulation Purposes", by P. O. Nicodemus appeared in the April 1959 ASTM Bulletin No. 237. "Asbestos in the Service of Modern Railways", by C. Z. Carroll-Porczynski, appeared in the April 1959 number

of Engineering Materials and Design. "Asbestos Reinforcements", by M. S. Badollet, is the title of an informative article published in the 1960 Modern Plastics Encyclopedia. "Refractory Fibres Used in Modern Industry", by C. Z. Carroll-Porczynski, appeared in the November 1959 number of Engineering Materials and Design.

There were a number of books published in 1959. Among them are: "Compilation of ASTM Standards on Textile Materials", developed by ASTM Committee D-13 on Textile Materials; "Asbestos, A Materials Survey", available from the Superintendent of Documents, U. S. Government Printing Office; "Asbestos—Its Industrial Applications", by D. V. Rosato, and, "ROOFING Estimating, Applying, Repairing", by James McCawley.

This then is the record for 1959. It has been an interesting year for us; an increasing interest has been taken in asbestos and asbestos products. We noticed, or so we thought, an increasing use of our service for the furnishing of information, an increasing awareness of the usefulness of the magazine "ASBESTOS" and the services it can and does render. Any progress we may have made through the year is mostly attributable to the courtesy, helpfulness and cooperation given us by all members of the Industry, in solving the problems, and answering the queries put to us by our readers.

"ASBESTOS" and its staff wishes to all its readers, a very profitable and progressive coming year.

REFRACTORY FIBRES USED IN MODERN INDUSTRY

The above article by C. Z. Carroll-Porczynski, Manager of Asbestos Department of Metal Traders Limited, London, England, appeared in the November 1959 number of "Engineering Materials and Design."

"ASBESTOS" will be glad to lend its copy of this interesting and instructive article to readers.

PROFILE—W. E. CLARK
UNITED STATES RUBBER COMPANY

W. E. Clark

William E. Clark, Vice President of United States Rubber Company and General Manager of its textile division which manufactures and sells a variety of asbestos fabrics, has been in the textile business for nearly three decades.

Recently named Chairman of the Board of the Textile Institute, Mr. Clark has been an industry leader for nearly a third of that time. Under his direction, U. S. Rubber's textile division has become one of the 15 largest producers in the field.

Mr. Clark was born in Cannonsville, New York, February 28, 1905, but spent most of his early boyhood and attended school in Binghamton, New York, where his father, O. E. Clark, ran a retail feed and grain business, for 30 years.

Young Bill Clark's first job was with Standard Oil Co. of New York in Binghamton. While with this company, he continued his education with a LaSalle extension course in accounting.

In 1924 he entered the retail chain store field and worked up to become manager of the Montgomery Ward store in Greenville, South Carolina, later moving to Canada to become manager of Metropolitan Stores, Limited, in Port Arthur and Hamilton, Ontario, successively.

He returned to the United States and joined U. S. Rubber Company in 1931 as a clerk at the Stark Mills, Hogansville, Georgia, and in 1932 was appointed to the divisional staff of the textile division which had its headquarters then at Hogansville.

In 1936 he was appointed to install labor standards at the Stark Mills; and, when a similar program was extended to other textile mills in the company, Mr. Clark was given the responsibility of handling it for the entire division. At the same time, he helped organize and head up the textile division's industrial relations program.

In 1940 Mr. Clark was made production assistant to the general manager of the textile division, and the following year was granted a year's leave of absence from the company in order to assist his father in the operation of his business.

Returning to the company in 1942, he was transferred to New York where the textile division had moved its headquarters and continued as production assistant to the general manager.

He was made assistant general manager of the textile division in 1945. He was elected a vice president of the rubber company and named general manager of the textile division October 1, 1951.

In 1928, he married Ruth Phillips of Hogansville, Georgia. Mr. and Mrs. Clark live in Douglaston, Long Island, New York, and attend the Community Church of Douglaston. He is a member of the Douglaston Club and North Hills Country Club of Long Island, the Union League Club of New York City, the Farmington Country Club of Virginia, and Skytop Club of Pennsylvania.

National Gypsum Company announced the completion of a major expansion of its plant in Savannah, Georgia, making it "the largest gypsum plant in the world".

Warehouse facilities at the plant were substantially enlarged along with production facilities. Products made at other National Gypsum plants including asbestos siding and roofing shingles, rock wool insulation, insulation board and paint are warehoused at Savannah for shipment with gypsum products.

WHAT IS RESEARCH AND DEVELOPMENT?

*By: Clyde R. Hutchcroft**

Research and Development are separable functions. As applied to industrial operations, Research implies the investigation of nature to achieve new knowledge. It is not scientifically unsporting to direct the search along lines which may be of interest to the business in which the researcher finds himself. The knowledge gained by research may often be put to use in industrial Development.

Development applies existing information to create new processes and to make new products. Research is creative and unpredictable. It does not produce specified results on schedule. Development of new processes and new products can be planned, and within limits, produced within predicted time periods.

The pace of industrial competition is no mere straight line growth. Where one man was engaged in Research and Development in 1940, there are now two, and the growth curve still goes up. It takes much effort today to merely stand still. The industrial firm which does little planning and R&D work today is quietly arranging an early date with insolvency.

The profitable economic life span of any product has a finite beginning and end. The span of this economic life is drastically shortened as the tempo of Research and Development is increased.

The sale of buggy whips grew slowly over the centuries, reaching a peak in the early nineteen hundreds. The automobile crank lasted about thirty years. The hula hoop (happily!) lasted one summer. In many instances as soon as a new product appears on the market, it is starting down the road to oblivion. Its sales start slowly, rise to a peak and slowly fall off. Pity the company which has not developed a new product to replace it!

The really important thing in finding new products is ideas. The idea need not be in full bloom; a little bud will do. Some suggestions will come from the sales department of a company, some from customers, some from other parts

of a company, and a few from Wishful Willie, the basement inventor. Management consultant groups report, however, that about 80% of the ideas which turn into new products come from R&D personnel.

In broad daylight it would be impossible to distinguish a member of K&M's R&D group from sales or manufacturing personnel. Outwardly, there is nothing to set them apart from their fellow employees. They are chemists, engineers, physicists and mathematicians.

Just where do they differ from those in other pursuits then? One might say that the difference lies in their inquisitiveness. What makes the grass green? How can we make the grass grow greener? The R&D man is never satisfied with the status quo.

Fortunately, we have a number of ideas on which to work. (We could use more, because the new ones might be better.) But which ones should be tried first? R&D costs money for men, materials and building. In United States industry it costs about two cents of every dollar of sales income. One objective of an industrial company like K&M is to make a profit. If we are going to spend money on Research and Development, it should be spent on those ideas which have the most chance for profitable success.

Each new idea is first screened by our New Products Group, composed of experienced top ranking members of Sales, Manufacturing, Engineering, and R&D. They may return it to the void from which it came if it holds no promise. But if it has any real hope of growing up, it will be subjected to preliminary survey for capability to develop it, the probable cost to make it, including capital, the estimated number of units which could be sold, and the profit which might result over a period of time. If it is good, after this scrutiny, it is recommended to the Committee guiding R&D.

This group is composed of the Chairman and Directors of the company and the R&D Manager. The infant idea is now subjected to an even more penetrating study, and if it passes, goes on the R&D agenda. This rigorous process would seem to make success assured. Unfortunately, it doesn't. Even in the best managed companies the odds are six to four against success. In some of our well known

American companies the odds go up to ninety-seven to three! We're always trying to hit the jackpot, but as yet we haven't come up with a 0.500 season.

The idea of a new product has thus been born and blessed, but the thing has never been made. The process may not exist. Follow one of these embryo ideas (we can at least imagine that *this one* is successful) and see how it grows.

The Development Engineer will first restate the idea in his terminology and have the restatement approved. It's amazing how often, when this is not done, that something quite different is made! Now the problem is fully known and approved. A plan of attack must be made.

One of the first items in this will be a literature and patent search. When this is completed, the plan of attack is extended into work to be done. The time schedule necessary to do it, and the equipment needed to carry it out.

Laboratory bench work gets under way. As the experiments become more complicated, the assistance of a mathematician is requested to statistically design them so as to get the maximum amount of information from the fewest experiments. The chemist and the physicist are requested to help with phases requiring additional research or control methods. Soon a process is evolved which may work. The Finance Department is called in to assist in first stage cost accounting. If it is good, work continues. If no bug which can't be lived with is found, small amounts of the product are made and tested. The tests are satisfactory. More process information is needed, however, and sales may need a sample of the product for preliminary market research.

The product moves from the Laboratory to the Pilot Plant. Small scale equipment is used to produce the product by the process evolved. This usually results in further laboratory work to iron out reaction or process difficulties not previously known. Ultimately a workable process and a good product result.

Back to Finance for another cost accounting. How much would the equipment cost? How much labor is necessary? What are the yields? What is the rate of production? The factories are consulted as to their views.

With their electronic brains and their calculators, Finance works out a figure. For this illustration at least, the process and product proved attractive and profitable.

Design data is submitted to Engineering, and they, together with R&D and the factory, design and install the equipment to manufacture the new product. As the equipment is being installed, the factory and Quality Control are instructed in manufacturing details and requirements. Pilot Plant samples and data are submitted to Sales so that they may prepare their technical literature and marketing program.

Finally the equipment is installed and ready to operate. The Development Engineer must now work closely with Engineering, Factory, and Quality Control to make the process work and produce a product similar to that which was made in the Pilot Plant. All too often the "scale up" has missed on some point, and back to the "salt mines" in the Pilot Plant. But with the combined assault of all members of the Company team, the process is tamed, and in due time, the desired product manufactured and sold at a profit.

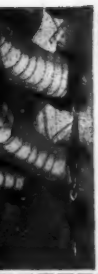
The new product is at the beginning of its economic life cycle. The group guiding R&D has just approved an idea to make a new product for development which will replace it at a lower cost, and which will have more desirable properties. Mr. Development Engineer, how soon can you have it out?

*Research and Development Manager, Keasbey & Mattison Co.

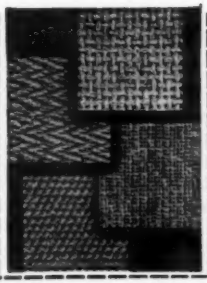
J-M Asbestos Tubing selected asbestos yarn braided into flexible, fireproof, chemical-resistant sleeving. Inside diameters 1/64"-2½". Plain or wire-inserted.

An important "plus" in J-M Asbestos FIBRES or TEXTILES...

Imagine—asbestos fibres some 1500 times finer than a human hair . . . controlled to meet strict grading requirements and over 20 textural classifications!



J-M No. 55 Tape silicone-impregnated asbestos, cuts costs of fireproofing electrical cable . . . repels water . . . resists oil, fungus, mold, rot . . . and is non-sagging.



J-M Asbestos Cloth uniform textures from *light-proof* to *open weave*. Exceptional resistance to heat, flame, chemicals. In all standard grades.

LES . . .

QUALITY

is carefully controlled at Johns-Manville

Some of the most comprehensive quality standards ever devised by industry assure that all 60 or more grades of Johns-Manville crude and milled asbestos—and the asbestos textiles made from them—are *exactly* as defined.

Day in and day out, in every step of production, continuous testing is run to measure and control a score of properties. Wet and dry volumes, adsorption levels, settling rates, grit removal, density and degree of fiberization —nothing escapes the eye of J-M Quality Control.

This unrelenting attention to product detail explains the high acceptance of Johns-Manville in asbestos fibres today. It also helps explain how asbestos textiles and products fabricated from these raw materials can meet the highest standards.

For FIBRE literature write Asbestos Fibre Division, Box 1500, Asbestos, Quebec, Canada.

For TEXTILE literature write Asbestos Textiles Department, Box 14, New York 16, N. Y.

JOHNS-MANVILLE

C. B. BURNETT
Elected President

C. B. Burnett has been elected President and Chief Operating Officer of Johns-Manville Corporation, manufacturer of industrial products and building materials, effective January 1, 1960, it was announced by A. R. Fisher, Chairman and Chief Executive Officer.

Mr. Fisher will relinquish the Office of President which he has held since 1951. He will continue as Chairman and Chief Executive Officer, offices to which he was elected in 1957. Mr. Fisher has been a Director since 1951.

Mr. Burnett is a native of Waukegan, Illinois, a business administration graduate of Washington University, St. Louis, Missouri, where he received a Bachelor of Science degree, and a former law student at Kent College, Chicago, Illinois. He joined Johns-Manville in 1931 and attained wide company experience in production, engineering, cost reduction, planning, and administration before being elected Executive Vice President and a Director in 1957. He will continue as a Director of the Corporation. The Office of Executive Vice President will be abolished.

During the past year, Mr. Burnett has been Chairman of the Operating Committee directing the smooth integration of sales and production of the former L.O.F. Glass Fibers Company which Johns-Manville acquired on December 31, 1958.

He also has headed a Coordinating Committee this year directing integration of the former F. E. Schundler and Co., Inc., with perlite operations at Joliet, Illinois and No Agua, New Mexico, which Johns-Manville acquired on September 21, 1959.

Among other recent executive responsibilities, Mr. Burnett was General Manager of the Johns-Manville Celite Division with main production operations at Lompoc, California, and General Manager of the Johns-Manville Packing and Friction Materials Division. For three years, he was company-wide Director of Engineering.

In 1941, Johns-Manville assigned Mr. Burnett to manage the Kansas Ordnance Plant, near Parsons, Kansas, which the company built and operated during World War II for the United States Government.

CLUTE CORP. ACQUISITION

Mr. John H. Lowell, President of Clute Corporation, announced on November 16th, 1959, that the Company has acquired 100% of the outstanding stock in Asbestos Bonding Corporation. ABC holds a 99-year fee lease on the largest known asbestos deposit in the United States.

The patented mining claims held by the company consist of 202 acres located near Napa, California. The ore body containing chrysotile asbestos, a type which constitutes about 95% of world production, is fully exposed on the surface, allowing economical open pit mining. The ore is milled on the property in an air separation pilot plant especially designed for ABC by the Clute Manufacturing Division at Rocky Ford, Colorado. Recovery of asbestos fiber is running currently at approximately 23% of ore put through, an unusually high percentage as compared to the Canadian average of approximately 10% recovery.

Positive ore reserves in the ABC mine have been established at 1,795,000 tons of short fiber asbestos, with probable reserves of 5,500,000 tons, and possible reserves estimated at 150 million tons. Known reserves in the United States prior to the discovery of the ABC mine were approximately 1 million tons located in Vermont. West Coast manufacturers of asbestos products will realize sizeable savings on short haul freight rates from Napa.

"Location of the Napa deposit is most significant", stated Mr. Lowell, "as all major asbestos producing mines in North America are located in Eastern Canada. The United States has developed the greatest asbestos products industry in the world. Yet we are overwhelmingly dependent on importing 90 to 95% of our raw asbestos from foreign countries".

The Clute Corporation for 30 years has designed and manufactured equipment for the movement and classification of materials through the use of the negative air principal. The equipment is well known and widely used for cleaning and conveying in the seed, wheat, rice and sugarbeet industries. Mills installed by Clute for ABC and other mining operations have improved efficiency in the recovery of asbestos fiber and mica from ore.

UNION ASBESTOS & RUBBER CO.

New Line of Asbestos Sheet Packing

A new line of compressed asbestos sheet packing has been announced by Union Asbestos and Rubber Company, Bloomington, Illinois. This packing, designed primarily as a gasketing material for a wide variety of industrial uses, constitutes the latest addition to one of the most complete asbestos lines available in the United States.

The packing is available in eight basic grades in standard size sheets including: commercial, intermediate, Navy, premium, neoprone, premium neoprene, and blue asbestos.

Commercial grade sheets are designed for general purpose use in making gaskets for industrial applications involving steam, gas, and air at high temperatures. Average tensile strength of the material is 3,000 psi; density is 1.1 oz./cu. in. The sheets are available in black (Style 10-1) and in white (Style 10-4), and meet the requirements of ASTM-D 1170-58T and P1161-A.

Designed for higher service requirements up to 700°F. Intermediate grade (Style 16) sheets provide good service against gases, steam and air. Style 16 meets the requirements of ASTM-D 1170-58T and P1161-A.

For the requirements of industrial and marine installations, UNARCO offers Navy grade (Style 11-1). These sheets are suitable for temperatures up to 700°F., and pressures to 300 psi. Average tensile strength is 4200 psi; density is 1 oz./cu. in. This product meets standards of MIL-A-17472; ASTM-D 1170-58T; P-1161-A.

Premium grade (Style 12) is intended for use under even more severe and hazardous conditions, including steam-saturated, superheated and highly alkaline environments. Having a tensile strength of 5000 psi, and designed for temperatures of 700°F., these sheets are recommended for use in oil refineries and public utility installations. The grey-black sheets comply with requirements of ASTM-D1170-58T and P-1161A.

Top grade sealing against gasoline, oil, and other petroleum distillates, as well as freons used in the refrigeration industry, is provided by Neoprene sheets (Style 13).

Available in black sheets with a tensile strength of 3000 psi, Style 13 conforms to ASTM-D1170-58T and P1151-A.

Neoprene sheet (Style 14), meets higher requirements than Style 13 and is used for sealing against hot oil and solvents of gasoline and toluol in aircraft and diesel engines. The tensile strength of Style 14 is 4000 psi, and density is 1.0 oz./cu. in. The product meets specifications of MIL-A-7021A, Class 1; ASTM-D-1170-58T, and P1151-A.

Designed for general chemical service, Blue Asbestos sheets withstand sulphuric, nitric and other acids, at both high and low temperatures. The sheets are blue-black in color, and are available in thicknesses of 1/8, 1/16 and 1/32 inch.

Other compressed asbestos sheets mentioned above are also available in these thicknesses as well as in a thickness of 1/64 inch.

For additional information on UNARCO Compressed Asbestos Sheets, write Union Asbestos & Rubber Company, Fibrous Products Division, 1111 West Perry Street, Bloomington, Illinois.

MARKET CONDITIONS

ASBESTOS—RAW MATERIAL.

October shipments for the Asbestos Industry dropped 5,000 tons over the same period last year and shipments to date are now running 65,235 tons or approximately 10% higher than the first 10 months of 1958. However, export shipments to the end of September are 119,100 tons or 30% higher than the same period 1958. Export shipments are expected to attain a 40% increase over last year by year-end.

Total asbestos fibre shipments for the Industry is expected to surpass those of 1958 by approximately 20% to 25% by the end of 1959.

ASBESTOS—MANUFACTURED GOODS.

Asbestos Textiles. The demand for this product during the third quarter was curtailed by the steel strike and the several strikes in the copper mines. Steel producers and steel fabricators represent the major market for asbestos safety clothing. Wire and cable production is another major use of asbestos textiles. The last quarter of the year should show a marked improvement over the third quarter. However, much of the postponed demand will probably carry over into the first quarter of 1960.

Asbestos Brake Lining. Replacement business is still running at a high level. Business is expected to continue good throughout the balance of the year. Equipment sales are off due to the effect of O.E.M. production by the steel strike. If the strike is settled on a favorable basis, 1960 should be a record year, from the sales standpoint.

Asbestos Paper. Orders for this material have increased slightly, as more steel has become available. It is anticipated that the remainder of this year will see a gradual increase in orders but the overall picture for 1959 will show a marked decrease which is the direct result of the steel

strike. Orders for *Asbestos Millboard* continue to come in in a rather spasmodic fashion and competition is keen for all of this type business. For the remainder of the year, it is anticipated that there will be a slight increase in orders due to the flow of more steel. At the present time, production exceeds demand for *Asbestos Saturated Paper*. This is partially due to the steel strike and the weather. The demand will be down for the balance of the year, due to the weather.

Asbestos-Cement Products. At this time of the year, the volume of asbestos-cement product sales always decreases and will stay at a reduced level until weather conditions, more favorable to building operations, occur. Asbestos siding and flat sheets are receiving more favorable consideration than they have in the recent past. This is the result of new offerings in design, colors and finish in both siding and flat sheets.

Corrugated and Flat. Shipments of this product have increased each month of 1959. The results of the steel strike will no doubt be apparent during the early part of 1960. However, the outlook is good for the rest of the year.

High Pressure Insulation. At the present time, orders for this product have been very slow and prices continue to be extremely competitive for the business that is available among both contractors and manufacturers. Settlement of the steel strike should shortly result in an improved volume of business.

Low Pressure Insulation. Orders for this material have been very slow in the last thirty days and is not expected to change during the next two or three months.

Shingles—Roofing & Siding. Order placements to date are about 20% below those for the same period last month. The outlook for the balance of the year is good.

Asbestos Pipes. At the present time, the market for this product has begun to decline seasonally.

Asphalt Tile. The market continues strong for Asphalt

Tile, sales of which are currently running about 10% ahead of the record 1958 volume. Industry sales of Vinyl Asbestos Tile through the third quarter of 1959 show an increase of approximately 45% of the first three quarters of 1958. The outlook for the balance of 1959 is good, with total sales of Asphalt Tile expected to be 10% ahead of 1958 sales, and with Vinyl Asbestos sales expected to be almost 50% ahead of the previous year.

The above comments have been made by various informed executives in the Industry. All comments are welcome.

The Flintkote Company, manufacturer of America's broadest line of building products as well as other materials for home and industry, announced plans for construction of a $14 million cement plant at Redding, California. The new plant will be built under the direction of and operated by Calaveras Cement Company, a Flintkote division, and is scheduled for completion by March 1961. It is to be situated on a raw material site encompassing more than 1,500 acres of high-grade limestone and shale.

This announcement by Flintkote marks another in a series of planned steps by the company to expand its many product lines throughout the country.

The September issue of "ASBESTOS" Magazine carried an article on the use of Sprayed "LIMPET" Asbestos for use in thermal insulation, condensation control, fire protection and acoustical correction. The article indicated that its application in the United Kingdom is carried out by Turners Asbestos Cement Company, Limited, of Trafford Park, Manchester, England. It is interesting to note that this material is available in North America through Keasbey & Mattison Company, Ambler, Pennsylvania, sole licensee in the United States; and in Canada, through the Atlas Asbestos Company, Limited, Montreal, P. Q.

AUTOMOBILE SALES

	September 1959
Passenger Cars	229,410
Motor Trucks	79,573
Motor Coaches	134
	309,117

In September 1958, a total of 149,256 motor vehicles were sold. In the nine months of 1959, the total was 5,225,909.

These figures were supplied by the Automobile Manufacturers Association, New Center Building, Detroit, Michigan.

AFRICA (Rhodesia)

(Published by Rhodesia Chamber of Mines)

Tons 2,000 lbs.

Production for July 1959	10,108.94
Valued at	£603,130
Production for July 1958	10,637.88
Valued at	£699,078

CANADA

(Dept. of Mines, Province of Quebec)

Tons 2,000 lbs.

Production for September 1959 (Quebec)	92,853
Other Provinces	5,510
	98,363

Total production for September 1958 was 88,992 tons.

CYPRUS

(From Inspector of Mines)

	2nd Quarter (Ending June 30, 1959)		
	April	May	June
Rock Mined	34,300	147,199	307,576
Rock Treated	..	34,853	87,204
Fibre Produced	..	585.65	2,585.40
Fibre Exported	1,711	1,335	1,850.65

THE PHILIP CAREY MFG. CO.
Nine-Month Report

Report for the nine months ended September 30, 1959, was issued by The Philip Carey Manufacturing Company, and gives the following figures:

Sales 1959	$55,877,677
Compared with same period, 1958	49,426,311
Net earnings after income taxes	2,869,172
Compared with same period, 1958	1,261,729
Earnings per common share	3.37
Compared with same period, 1958	1.48

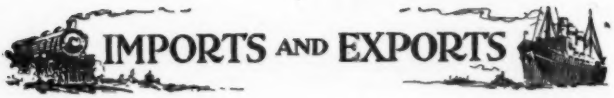
ASBESTOS CHAPTER
Preprint from 1958 Minerals Yearbook

The 1958 Chapter on Asbestos from the U. S. Minerals Yearbook, published annually by the U. S. Bureau of Mines, has just arrived. All "ASBESTOS" readers who have collected an Asbestos Library, will want a copy. Send 10¢ (in coin) to the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D.C.

It contains salient statistics of the Asbestos Industry in the United States, including a table of World Production of Asbestos, (by countries), 1949 to 1958, inclusive.

Other information on the Asbestos Industry in 1958 which the pamphlet contains will, no doubt, be of interest to our readers.

Jefferson Lake Sulphur Company has exercised an option to acquire a major deposit of chrysotile asbestos in California from **American Asbestos Company** of New York City.



Imports Into U.S.A.

(Figures by Bureau of Census)

Unmanufactured Asbestos:

	July 1959 Tons (2240 lbs.)
From: Canada	56,231
Union of South Africa	3,909
Australia	1,673
Yugoslavia	448
Rhodesia (Ny)	314
United Kingdom	40
Other Countries	63
	62,678
Valued at	$5,702,462

By Grades:

Crude,	No. 1,	Chrysotile	1
Crude,	Other,	Chrysotile, Yugoslavia	448
Crude,	Other,	Chrysotile, U. of S. Africa	128
Crude,	Other,	Chrysotile, Rhodesia (Ny)	269
Crude,	Other,	Chrysotile, Other Countries	1
Crude,	Blue,	Australia	1,673
Crude,	Blue,	Union of South Africa	2,533
Crude,	Blue,	Rhodesia (Ny)	45
Crude,	Amosite,	Union of South Africa	1,159
Textile	Fiber,	Chrysotile, Canada	1,333
Textile	Fiber,	Chrysotile, Other Countries	38
Shingle	Fiber,	Chrysotile, Canada	5,487
Shingle	Fiber,	Chrysotile, U. of S. Africa	89
Paper	Fiber,	Chrysotile, Canada	3,888
Other	Fibers,	Chrysotile, Canada	45,523
Other	Fibers,	Chrysotile, United Kingdom	40
Other	Fibers,	Chrysotile, Other Countries	23
			62,678

Manufactured Asbestos Goods:

	July 1959 Quantity (lbs.)	Value
Asbestos Yarn, United Kingdom	28,642	$ 20,359
Asbestos Yarn, Other Countries	11,205	7,914
Asbestos Packing	28,890	10,985
Asbestos Shingles (Impreg)	119,076	6,633
Asbestos Shingles (Not Impreg) Canada	457,424	51,446

Now in Operation: New Independent Source of Asbestos. **Lake Asbestos of Quebec, Ltd. will supply 100,000 tons of high-quality chrysotile asbestos fibre annually. If you need a new dependable source for high grade asbestos, write to Lake Asbestos of Quebec, Ltd., 120 Broadway, N.Y. 5, N.Y.**

North American Sales Agents:

California, Los Angeles
E. B. Taylor Company
California, San Francisco
E. M. Walls Company
Colorado, Denver
Braun-Knecht-Heimann Co.
Illinois, Chicago
Central Solvents & Chemicals Co.
Indiana, Indianapolis & Ft. Wayne
Hoosier Solvents & Chemicals Corp.
Kentucky, Louisville
Dixie Solvents & Chemicals Co.
Massachusetts, Allston
D. H. Litter & Co., Inc.
Michigan, Detroit
Baker & Collinson
Missouri, Kansas City & St. Louis
Missouri Solvents & Chemicals Co.
New York, Buffalo
Buffalo Solvents & Chemicals Corp.
New York, New York
D. H. Litter & Co., Inc.
Ohio, Cincinnati
Amsco Solvents & Chemicals Co.
Ohio, Cleveland
A. C. Mueller Co., Inc.
Oregon, Portland
Van Waters & Rogers, Inc.
Pennsylvania, Conshohocken
Van Horn, Metz & Co., Inc.
Texas, Houston
Federated Metals Division
Utah, Salt Lake City
Braun-Knecht-Heimann Co.
Washington, Seattle
Van Waters & Rogers, Inc.
Wisconsin, Milwaukee
Wisconsin Solvents & Chemicals Corp.

LAKE ASBESTOS OF QUEBEC, LTD.

a subsidiary of American Smelting and Refining Company

Belgium	4,911,509	410,852
W. Germany	345,329	19,554
Italy	1,781,160	80,099
Other Countries	165,699	10,901
Asbestos Manufactures — Others	..	4,908
	7,848,934	$623,651

Exports from U.S.A.

(Figures by Bureau of Census)

Unmanufactured Asbestos:	August 1959 Tons (2240 lbs.)	Value
To: Europe	284	$71,482
Canada	34	12,222
South America	..	517
Other Countries	3	1,590
	321	$85,811

Manufactured Asbestos Goods:		August 1959 Quantity	Value
Asbestos Cement & Pipe Coverings	Lbs.	488,112	$ 111,737
Asbestos Textiles & Yarn	Lbs.	54,020	45,149
Asbestos Packing	Lbs.	155,345	190,910
Asbestos Clutch Facings	No.	134,628	110,096
Asbestos Bk. Lng. (Mld.&S.Mld.)	Lin. Ft.	138,847	60,362
Asbestos Brake Lining, Other	Lbs.	517,355	377,778
Asbestos Construction Materials	Lbs.	2,352,627	253,757
Asbestos Manufactures—Others		..	66,347
		3,840,934	$1,216,136

IMPORTS OF ASBESTOS BY UNITED KINGDOM

Raw Materials

Tons 2,240 lbs.	September 1959
From: Union of South Africa	2,684
Basutoland, Bechuanaland & Swaziland	1,130
Rhodesia & Nyasaland	3,244
Canada	5,698
Other Commonwealth Countries and Irish Republic	176
Foreign Countries	115
	13,047

NEWS OF THE INDUSTRY

HAPPY BIRTHDAY

Joseph Poulin, President & General Manager, Asbestonos Corporation Ltd., St. Lamber, Montreal, Canada, December 15.

Victor H. Barr, Secretary-Treasurer, MacArthur Company, St. Paul, Minnesota, December 16.

F. M. L. Olsen, Secretary, The Cape Asbestos Company Ltd., London, England, December 18.

George J. Pecaro, President, The Flintkote Company, New York City, December 20.

Harry C. Redstone, Secretary, Asbestos Distributors, Inc., Port Chester, New York, December 20.

Edwin E. Hokin, President & Chief Executive Officer, Union Asbestos & Rubber Company, Chicago, Illinois, December 21.

George N. Clark, Clark Asbestos Company, Cleveland, Ohio, December 22.

Robert L. Clark, Treasurer & Chairman of the Board, Clark Asbestos Company, Cleveland, Ohio, December 22.

Al Kevelson, Ace Asbestos Manufacturing Company, Jersey City, New Jersey, December 24.

Jacob P. Epstein, President, Empire Asbestos Products, Inc., Glendale, Long Island, New York, December 25.

Joseph J. Kelly, Secretary-Treasurer, Western Asbestos Company, San Francisco, California, December 25.

Amor P. Smith, Vice President & Secretary, Russell Manufacturing Company, Middletown, Connecticut, December 25.

Matthew J. Fitzgerald, President, Standard Asbestos Manufacturing Company, Chicago, Illinois, December 27.

E. E. Tanguy, District Manager, Armstrong Cork Company, Baltimore, Maryland, December 28.

Arthur H. Velleman, President, Ovimpex, Inc., New York City, December 28.

Fred A. Mett, President, Powhatan Mining Corporation, Baltimore, Maryland, December 29.

P. S. Nash, Vice President, Union Asbestos & Rubber Company, Chicago, Illinois, December 31.

Robert G. Beldam, Managing Director, Beldam Asbestos Company Ltd., Hounslow, England, January 3.

Dwight H. Ruh, General Sales Manager, Sall Mountain Division, Nicolet Industries, Inc., Hamilton, Ohio, January 3.

A. C. M. Cornish-Bowden, Director, The Cape Asbestos Company Ltd., London, England, January 4.

S. D. H. Pollen, Director, The Cape Asbestos Company, Ltd., London, England, January 4.

Harold O. Weise, Vice President, Tilo Roofing Company, Stratford, Connecticut, January 4.

William L. Keady, President, Pabco Insulation Division, Fibreboard Paper Products Corp., San Francisco, California, January 5.

Rupert St. G. Riley, Sales Director, The Cape Asbestos Company Ltd., London, England, January 6.

James B. Anchors, Vice President & General Sales Manager, Kelley Asbestos Products Co., Kansas City, Missouri, January 7.

R. H. Chase, Products and Production Devices Company, Atherton, California, January 11.

To all these gentlemen we extend congratulations and best wishes on the occasion of their birthdays.

ASBESTOS STOCK QUOTATIONS

(These figures are compiled from the Commercial & Financial Chronicle. No guarantee as to their correctness.)

		November 1959		
	Par	Low	High	Last
American Brake Shoe	np	46⅞	51½	50
Armstrong Cork (Com)	1	43¼	49¾	49½
Armstrong Cork (Pfd)	np	77	79½	78
Asbestos Corporation	np	26	28	26¼
Philip Carey	10	38⅛	44½	43¼
Cassiar Asbestos Corp.	np	11	12⅜	11½
Celotex (Com)	1	32	36½	33½
Celotex (Pfd)	20	18⅛	19¼	18½
Certain-Teed	1	14⅛	16⅛	14⅛
Fibreboard	np	47	52½	47¾
Flintkote (Com)	5	34⅝	37⅝	35⅛
Flintkote (Pfd)	np	82	85	85
Johns-Manville	5	48⅝	52⅜	50¼
National Gypsum (Com)	1	53¾	59	54⅞
National Gypsum (Pfd)	np	84	92	87
Porter, H. K.	100	94	95	94½
Raybestos-Manhattan	np	68	70½	68⅞
Ruberoid	1	38¾	40½	39⅞
Unarco	5	9⅝	10¾	9⅝
United Asbestos	1	$4.60	$5.10	$4.60
U. S. Gypsum (Com)	4	94	101	94
U. S. Gypsum (Pfd)	100	147¾	155	150
U. S. Rubber (Com)	5	58¾	64½	59⅞
U. S. Rubber (Pfd)	100	144¼	153½	144¼

CURRENT RANGE OF PRICE

As of December 10, 1959

ARIZONA— Per Ton of 2,000 lbs., f.o.b. Globe, Arizona

No. 1 Crude (soft)	$1,475.00	to	$1,850.00
No. 2 Crude (soft)	830.00	to	1,260.00
Group-3 (Filtering & Spinning)	350.00	to	450.00
Group-4 (Plastic & Filtration)	190.00	to	250.00
Group-5 (Plastic & Moulding)	125.00	to	177.00
Group-7 (Refuse & Shorts)	60.00	to	100.00

CANADA— Per Ton 2,000 lbs. f.o.b. Mine
Canadian Currency

Group No. 1 (Crude No. 1)	$1,410.00	to	$1,475.00
Group No. 2 (Crude No. 2); Crude Run-of-Mine and Sundry	610.00	to	875.00
Group No. 3 (Spinning Fibre)	350.00	to	650.00
Group No. 4 (Shingle Fibre)	180.00	to	245.00
Group No. 5 (Paper)	120.00	to	150.00
Group No. 6 (Waste, Stucco or Plaster)	..		86.00
Group No. 7 (Refuse or Shorts)	40.00	to	80.00

VERMONT—Per ton of 2,000 lbs. f.o.b. Hyde Park or Morrisville, Vt.

Group No. 3 (Spinning & Filtering)	$ 353.00	to	$ 440.00
Group No. 4 (Shingle Fibre)	181.00	to	218.00
Group No. 5 (Paper Fibre)	120.00	to	142.00
Group No. 6 (Waste, Stucco or Plaster)	..		86.00
Group No. 7 (Refuse or Shorts)	41.00	to	75.00

Harry E. Smith, retired Vice President of RAYBESTOS-MANHATTAN, INC., in charge of rubber product sales, died November 2, 1959 at the age of 70 in the Memorial Hospital, Sarasota, Florida where he was living.

Raybestos-Manhattan, Inc. has revealed plans to build a Pacific Coast plant at Fullerton Industrial Park, Fullerton, California.

About two years ago the company established Pacific Coast operations at Paramount, California, in rented quarters. The new plant at Fullerton will contain about 25,000 square feet of manufacturing space on an 18-acre tract recently purchased. It will provide improved and expanded facilities for the production of items made of "Teflon" and Nylon now manufactured at Paramount, and the possible addition of other items.

The company plans to break ground for the new plant within the next few weeks, and it is expected to be in full operation in about six months.

Drastic reduction of heat loss with

PABCO PRECISION-MOLDED CALTEMP

a Calcium Silicate Insulation

When vapors or liquids are conveyed or held at temperatures up to 1900° F.—when equipment is operated to high heat levels—Pabco insulations cut heat losses to absolute minimums. "Precision-Molded" by a patented process, Pabco's Caltemp and 85% Magnesia pipe and block insulations control temperatures within close tolerances. For data on technical advantages, case histories, or engineering consultation, write . . . or call a Pabco insulation engineer.

INSULATION GUIDE

Temperature	Recommended Pabco Insulation
to 550° F.	85% Magnesia pipe covering • block • cement
to 1200° F.	Caltemp pipe covering • block • cement
to 1500° F.	Prasco 15 C pipe covering • block • cement
to 1900° F.	Prasco 19 C block

PABCO

INDUSTRIAL INSULATIONS DIVISION

Fibreboard Paper Products Corporation
San Francisco 19 • Chicago 54
Houston 4 • New York 16 • Los Angeles

James M. Shackelford has been elected Treasurer of JOHNS-MANVILLE CORPORATION, suceeding **Joseph L. Wood,** who retired December 1, 1959, it was announced by Roger Hackney, Vice President for Finance.

Mr. Shackelford joined the J-M finance organization in 1934. In September of 1955, he became Controller for the Johns-Manville Pipe Division in an executive rotation plan and two years later was appointed Assistant to the Treasurer.

A native of Charleston, South Carolina, Mr. Shackelford graduated from Washington and Lee University and did post graduate work at the Massachusetts Institute of Technology where he was awarded a degree in Engineering and Business Administration.

Seymour Milstein and **Harry C. Hachmeister,** President and Executive Vice President, respectively, of THE RUBEROID CO.'s Mastic Tile Division, have been elected to the board of directors, filling vacancies existing with the recent resignations of Charles F. Batchelder and Frederick E. Byrnes.

Oscar A. Maggia has been elected Secretary of THE RUBEROID CO., succeeding Mr. Byrnes, formerly vice president and secretary, who has retired. Mr. Maggia, who joined Ruberoid in 1942, will continue as Assistant Treasurer.

Herbert Abraham has been named Honorary Chairman of the Board of THE RUBEROID CO. Mr. Abraham had served as President of Ruberoid from 1923 to 1954 when he was elected Chairman of the Board, a post he held until March, 1959.

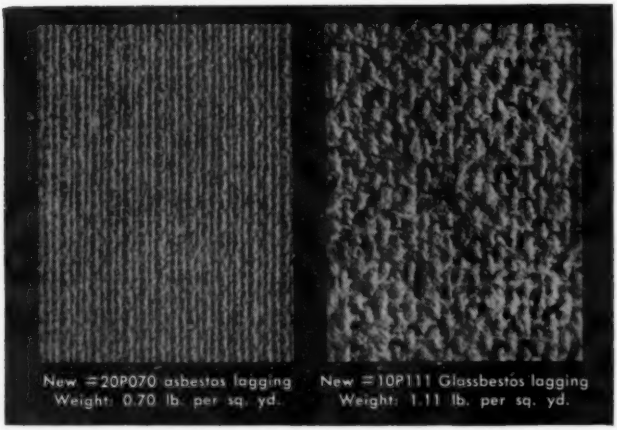
James E. McGoldrick, former Assistant General Purchasing Agent of the Otis Elevator Company, has joined the JANOS ASBESTOS COMPANY, New York City, makers of Bronco Packings and distributors of Asbestos Textiles.

In his new position he will handle the sales of special products in the New York Metropolitan Area.

Randolph H. Barnard, nationally-known glass industrialist, has announced his resignation as President of JOHNS-MANVILLE FIBER GLASS, INC., a manufacturing subsidiary of Johns-Manville Corporation with headquarters in Toledo, Ohio. Mr. Barnard said he would continue to advise Johns-Manville as a Consultant on fiber glass. **Francis H. May, Jr.,** Vice President, has been elevated to full responsibility for administration.

TOPICAL INDEX

ASBESTOS — For the Year 1959



NEW, LOWER-COST R/M ASBESTOS AND *Glassbestos*® LAGGING CLOTHS SAVE WEIGHT ON SHIPBOARD

Look for new profits by using the new R/M lagging cloths for shipboard application. Type #20P070 has only half the weight of standard Navy Class 5 lagging cloth and provides a 29% cost saving. Type 10P111 Glassbestos provides a cost and weight saving of more than 20% as compared with the standard 1.40 lb. Class 5 lagging cloth. Suitable for steam generating plants, too. Write now for full information and samples.

R/M

RAYBESTOS-MANHATTAN, INC.
ASBESTOS TEXTILE DIVISION, Manheim, Pa.

FACTORIES: No. Charleston, S.C.; Manheim, Pa.; Bridgeport, Conn.; Paramount, Calif.; Passaic, N.J.; Neenah, Wis.; Crawfordsville, Ind.; Peterborough, Ontario, Canada

RAYBESTOS-MANHATTAN, INC., Asbestos Textiles • Laundry Pads and Covers • Mechanical Packings • Brake Linings • Brake Blocks Clutch Facings • Rubber Covered Equipment • Industrial Rubber Engineered Plastics • Sintered Metal Products • Industrial Adhesives Abrasive and Diamond Wheels • Bowling Balls

SOUTHERN ASBESTOS — TEXTILES

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